

REMARKS

Entry of the foregoing amendments is respectfully requested.

Summary of Amendments

Upon entry of the foregoing amendments, claims 19-51 are cancelled and claims 52-84 are added, whereby claims 52-84 will be pending, with claims 52, 70 and 75 being independent claims.

Support for the new claims can be found throughout the present specification (see, e.g., pages 3, 17 and 18 and the Examples) and in the cancelled and original claims.

Applicants emphasize that the cancellation of claims 19-51 is without prejudice or disclaimer, and Applicants expressly reserve the right to prosecute the cancelled claims in one or more continuation and/or divisional applications.

Summary of Office Action

As an initial matter, Applicants note with appreciation that the Office Action indicates that the claim for priority is acknowledged and that a certified copy of the priority document has been received by the Patent and Trademark Office from the International Bureau.

Applicants also note with appreciation that the Examiner has indicated consideration of the Information Disclosure Statements filed April 4, 2007 and April 10, 2008.

The specification is objected to under 35 U.S.C. 132(a) as allegedly containing new matter.

Claim 45 is rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement.

Claims 19-51 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

Claims 19-51 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Brothers et al., U.S. Patent No. 6,232,372 (hereafter “BROTHERS”) in view of Rau et al., U.S. Patent No. 5,093,403 (hereafter “RAU”).

Claims 34 and 40 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over BROTHERS in view of RAU and further in view of Yamaya et al., U.S. Patent No. 4,816,516 (hereafter “YAMAYA”).

Claims 27, 28 and 39 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over BROTHERS in view of RAU and further in view of Nass et al., U.S. Patent No. 5,593,781 (hereafter “NASS”).

Response to Office Action

Reconsideration and withdrawal of the objection and rejections of record are respectfully requested, in view of the foregoing amendments and the following remarks.

Response to Objection to Specification and Rejection under 35 U.S.C. § 112, First Paragraph

The specification is objected to under 35 U.S.C. 132(a) as allegedly containing new matter and claim 45 is rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. In both cases the Examiner essentially alleges that the

application as originally filed does not provide support for an abrasion value of the claimed coating of less than 5 mg.

Applicants respectfully disagree with the Examiner in this regard. In particular, the Examiner's attention is directed to page 18, lines 22-26 of the instant specification where this element is unambiguously disclosed.

Response to Rejection under 35 U.S.C. § 112, Second Paragraph

Claims 19-51 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for allegedly failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The rejection alleges that the terms "low-energy surface", "substantially no vertical gradient" and "high temperature-resistant" render the rejected claims indefinite.

Applicants respectfully disagree with the Examiner in this regard as well. At any rate, the rejected claims are cancelled, wherefore this rejection is moot. Furthermore, the claims submitted herewith do not recite the terms "substantially no vertical gradient" and "high temperature-resistant". Regarding the term "low-energy surface" it is submitted that the present specification does provide a definition of this term; see, e.g., page 3, first paragraph of the present specification.

Response to Rejection under 35 U.S.C. § 103(a) over BROTHERS in View of RAU

Claims 19-51 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over BROTHERS in view of RAU.

The Examiner essentially takes the position that BROTHERS discloses a coating composition which comprises components (a) and (b) as recited in the rejected claims but concedes that BROTHERS does not disclose component (c). In this regard, the rejection essentially alleges that RAU would have rendered it obvious to one of ordinary skill in the art to incorporate inorganic filler particles in the coating compositions of BROTHERS.

Applicants respectfully (and strongly) disagree with the Examiner in this regard as well. At any rate, the rejected claims are cancelled, wherefore this rejection is moot.

Regarding BROTHERS, Applicants point out that in the third embodiment of the multicomponent particles disclosed therein (and apparently relied upon by the Examiner) the multicomponent particles are in the form of polymer binder coating bound to a core of melt-fabricable fluoropolymer having a polar functionality by chemical interaction (see, e.g., col. 2, lines 7-14 and 48-57 of BROTHERS). Polar functional groups are groups that have dipoles and when incorporated into the fluoropolymer, the fluoropolymer exhibits polarity (col. 10, lines 1-3 of BROTHERS).

Further, in col. 9, lines 12-29 BROTHERS states (emphasis added):

In the third embodiment of this invention, the components of the multicomponent particles are bound together by both chemical interaction and mechanical engagement. The melt fabricable fluoropolymer component and the polymer binder component are reactive to one another and the polymer binder is in the form of a coating or shell around a core of melt-fabricable fluoropolymer. The fluoropolymer component is derived from fundamental particles of aqueous fluoropolymer dispersion and contains polar functional groups. By chemical interaction is meant, the affinity of the polar functional group on the surface of the fluoropolymer dispersion particle for the polymer binder, e.g., amide or imide group present in the binder. Such interaction can be confirmed by observing the increase in size of the multicomponent particle as compared to the fundamental particle along with the discrete nature of the multicomponent particle, which in contrast to Embodiment I, is separate from a matrix of polymer binder.

The above explanation makes it clear that no chemical reaction but merely a polar (dipole-dipole) interaction takes place between the melt-fabricable fluoropolymer and the polymer binder components of the multicomponent particles of BROTHERS. This is in contrast to the instantly claimed composition where the at least one functional group of the at least one fluorinated polymer or oligomer (b) is capable of undergoing a chemical reaction with a functional group of the binder system (a). In other words, components (a) and (b) of the instantly claimed composition will undergo a chemical reaction in the course of curing the composition. Preferably, this chemical reaction (e.g., crosslinking reaction) involves not only component (b) but also component (c) (e.g., in the case of surface-modified particles).

BROTHERS is completely silent, and does not provide the slightest teaching or suggestion, with respect to a chemical reaction between the melt-fabricable fluoropolymer and the polymer binder components of the multicomponent particles taught therein and in fact repeatedly emphasizes the fact that there is (merely) an interaction between these components (see, e.g., col. 1, lines 56-58, col. 2, lines 10-12 and 55-57, col. 9, lines 12-14, col. 10, lines 3-6 and 23-25 and claim 8 of BROTHERS; see also Examples 7-10 of BROTHERS which appear to illustrate the third embodiment of the multicomponent particles). This is in conformity with the fact that the most preferred fluoropolymers of BROTHERS do not even comprise functional groups which can be considered to be chemically reactive (see, e.g., col. 2, lines 26-53 of BROTHERS).

In addition, BROTHERS emphasizes the fact that the fluoropolymer of the multicomponent particles must be melt-fabricable. In other words, the melting point of the fluoropolymer in the multicomponent particles according to the third embodiment of BROTHERS is important. It can

easily be recognized that any chemical reaction (e.g., crosslinking reaction) between the fluoropolymer and the binder components will have a significant impact on the melting point of the fluoropolymer and even would result in unmeltable particles which are no longer suitable for coating purposes. Accordingly, BROTHERS not only fails to teach or suggest the subject matter of the claims submitted herewith, but even teaches away therefrom.

RAU is unable to cure the noted deficiencies of BROTHERS. At any rate, RAU has merely been cited in an attempt to support the assertion that one of ordinary skill in the art would allegedly have been prompted to incorporate inorganic particles in the multicomponent particles of BROTHERS.

In this regard, it is not seen that there is any room for the incorporation of inorganic particles in the multicomponent particles according to the third embodiment of BROTHERS (having an earliest filing date several years after the publication date of RAU). Not only is there no indication at all in BROTHERS that the multicomponent particles according to the third embodiment can or should include any additional components, let alone solid particles, but it also is not seen how the disclosed process of making these multicomponent particles could be adapted to accommodate the additional inorganic particles (see, e.g., col. 12, lines 4-35 and Examples 7-10 of BROTHERS).

Applicants submit that for at least all of the foregoing reasons, BROTHERS in view of RAU is unable to render obvious the subject matter of any of the claims submitted herewith, wherefore withdrawal of the instant rejection under 35 U.S.C. § 103(a) is warranted and respectfully requested.

Response to Remaining Rejections under 35 U.S.C. § 103(a)

Dependent claims 34 and 40 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over BROTHERS in view of RAU and further in view of YAMAYA and dependent claims 27, 28 and 39 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over BROTHERS in view of RAU and further in view of NASS.

Applicants note that the rejected claims are cancelled, wherefore these rejections are moot. At any rate, YAMAYA and NASS are unable to cure the deficiencies of BROTHERS and RAU set forth above, wherefore the subjected matter of these claims is not rendered obvious by the cited documents for the above reasons alone. In view thereof, Applicants refrain from commenting on the corresponding allegations set forth in the instant Office Action without admitting, however, that any of these allegations is meritorious.

CONCLUSION

In view of the foregoing, it is believed that all of the claims in this application are in condition for allowance, which action is respectfully requested. If any issues yet remain which can be resolved by a telephone conference, the Examiner is respectfully invited to contact the undersigned at the telephone number below.

Respectfully submitted,
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